WHAT IS CLAIMED IS:

1. A ceramic component, comprising:

a ceramic body comprising silicon carbide; and

an oxide layer provided on the ceramic body, said oxide layer being formed by oxidizing the ceramic body in the presence of alumina having a submicron particle size.

2. The ceramic component of claim 1, wherein the ceramic body comprises nitride bonded silicon carbide.

3. The ceramic component of claim 2, wherein the ceramic body comprises silicon carbide as a primary component, and silicon nitride as a secondary component.

4. The ceramic component of claim 3, wherein the ceramic body comprises about 5 to about 35 wt% silicon nitride.

5. The ceramic component of claim 2, wherein the ceramic body has a porosity within a range of about 5 to about 25 vol%.

6. The ceramic component of claim 2, wherein the ceramic body is formed by reacting a green body with nitrogen while heating, the green body containing silicon carbide and silicon.

7. The ceramic component of claim 6, wherein the green body is formed by slip casting a slurry containing silicon carbide and silicon, forming a cast, and drying the cast.

8. The ceramic component of claim 1, wherein the ceramic component is a refractory component.

9. The ceramic component of claim 8, wherein the refractory component is selected from a group consisting of support posts, support beams, support plates, and containers.

10. The ceramic component of claim 1, wherein the oxide layer comprises silica and at least one of alumina and an aluminosilicate.

11. The ceramic component of claim 10, wherein the oxide layer includes an aluminosilicate, said aluminosilicate comprising mullite, said mullite having a composition $3Al_2O_3 \cdot 2SiO_2$.

12. The ceramic component of claim 1, wherein the alumina has a particle size less than about 0.8 microns.

13. The ceramic component of claim 1, wherein the alumina has a particle size less than about 0.5 microns.

14. A ceramic component, comprising:

a ceramic body comprising silicon carbide; and

an oxide layer provided on the ceramic body, said oxide layer being formed by oxidizing the ceramic body in the presence of alumina, the oxide layer containing an amorphous phase and a crystalline phase, the crystalline phase comprising anisotropically-shaped crystals.

15. The ceramic component of claim 14, wherein the anisotropically-shaped crystals comprise at least one of alumina and an aluminosilicate.

16. The ceramic component of claim 14, wherein the anisotropically-shaped crystals comprise at least one of alumina and mullite.

17. The ceramic component of claim 14, wherein the anisotropically-shaped crystals have an aspect ratio not less than about 3:1.

18. The ceramic component of claim 14, wherein the anisotropically-shaped crystals have an aspect ratio not less than about 5:1.

19. The ceramic component of claim 14, wherein the anisotropically-shaped crystals have a crystal size within a range of about 0.2 to about 20 microns.

20. The ceramic component of claim 14, wherein the anisotropically-shaped crystals have a crystal size within a range of about 0.5 to about 10 microns.

21. The ceramic component of claim 14, wherein the amorphous phase comprises silica and about 10 wt% to about 50 wt% alumina.

22. The ceramic component of claim 21, wherein the amorphous phase comprises at least about 12 wt% alumina.

23. A ceramic component, comprising:

a ceramic body comprising silicon carbide; and

an oxide layer coating the ceramic body, said oxide layer containing an amorphous phase and a crystalline phase, the crystalline phase comprising anisotropically-shaped crystals formed of at least one of alumina and an aluminosilicate.

24. A ceramic component, comprising:

a nitride bonded silicon carbide body having a porosity within a range of about 5 to about 25 vol%; and

an alumina-rich oxide layer provided on the ceramic body, said oxide layer being formed by oxidizing the ceramic body, the oxide layer having an amorphous phase and a crystalline phase, the alumina rich oxide layer having not less than 5wt% more alumina than an alumina content in the nitride bonded silicon carbide body.

25. The ceramic component of claim 24, wherein the alumina rich oxide layer has not less than 7 wt% more alumina than an alumina content in the nitride bonded silicon carbide body.

26. A ceramic component, comprising:

a nitride bonded silicon carbide body having a porosity within a range of about 5 to about 25 vol%; and

an oxide layer provided on the ceramic body, said oxide layer being formed by oxidizing the ceramic body in the presence of alumina, the oxide layer containing an amorphous phase, the amorphous phase comprising silica and about 10 wt% to about 50 wt% alumina.

27. The ceramic component of claim 26, wherein the amorphous phase comprises not less than about 12 wt% alumina.

28. The ceramic component of claim 26, wherein the amorphous phase comprises not greater than about 25 wt% alumina.

29. A method of forming a ceramic component, comprising:

providing a ceramic body comprising silicon carbide;

coating the ceramic body with alumina having a particle size less than 1.0 micron; and

oxidizing the ceramic body.

30. The method of claim 29, wherein the step of providing the ceramic body is carried out by slip casting to form a cast, and drying the cast.

31. The method of claim 30, wherein the cast comprises silicon carbide and silicon, and the step of providing further includes subjecting the cast to a heat treatment step in which the cast is subjected to a nitrogen source, the ceramic body further comprising silicon nitride.

32. The method of claim 29, wherein the ceramic body is provided by subjecting a green body containing silicon nitride and silicon to a nitrogen source while heating the green body to a temperature greater than about 1300°C for a time period of at least 12 hours.

33. The method of claim 29, wherein the alumina is coated by one of dipping and spraying, the alumina being provided in a suspension.

34. A method of processing ceramic parts, comprising:

providing ceramic parts and at least one refractory component in a furnace, the refractory component comprising a ceramic body comprising silicon carbide, and an oxide layer provided on the ceramic body, the oxide layer being formed by oxidizing the ceramic body in the presence of alumina having a submicron particle size; and

heat treating the ceramic parts and the at least one refractory component at a temperature not greater than 1500°C and for a time period not less than about 1 hour.

35. The method of claim 34, wherein said temperature is not greater than about 1400°C.

36. The method of claim 34, wherein said temperature is not greater than about 1300°C and said time period is not less than about 4 hours.

37. The method of claim 34, wherein the refractory component comprises kiln furniture for supporting the ceramic parts.

38. The method of claim 37, wherein the kiln furniture is a structural element selected from the group consisting of support posts, support beams, support plates, and containers.

39. The method of claim 34, wherein the refractory component comprises at least one of a structural wall of the furnace and a furnace liner.